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Fire Suppression & Native Range Release

Joseph G. Vollmer, Ph.D., BASF

Fire modeling conducted by:
SYNERGY Resource Solutions Inc.

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Special thanks to Kathy Kershaw of the BLM Lower Snake River District for her assistance.

Biomass data indicative of fine fuel loading from a BLM study area east of Boise

Type of Fuel	'96	'97	'98	'99	'00
	---- lbs/acre ----				
Bromus	1700	2222	2200	2245	1900
Litter	1500	2447	1350	3377	4182
Forbs	300	250	463	30	83
Total	**3500**	4919	4013	5652	**6255**

Source; 2001 Idaho Emergency Use Exemption, Plateau for control of leafy spurge, annual brome and medusahead in range. Idaho Department of Agriculture

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Fire Suppression & Native Range Release

- **Study Plans & Results**
- **Fire Modeling – reducing fire risk.**
- **Native Range Release.**
- **Revegetation of *Bromus* infested areas.**

PLATEAU herbicide

Methods used for the following research results

- 20 GPA
- 11002 flat fan tips
- CO^2 back pack sprayer
- 34 psi
- Small plot research 10’ x 50’ w/ 3 reps

Release of desirable plants

- **BLM, Boise area, Point Addendum**
- **Area had moderate leaf litter layer w/ some desirable species present.**
  - **90% *B. tectorum***
  - **10% WY big sage, Rabbit brush, Bottlebrush squirreltail, & Sandberg's bluegrass**
- **Treatments applied:**
  - **November 3, 1999**

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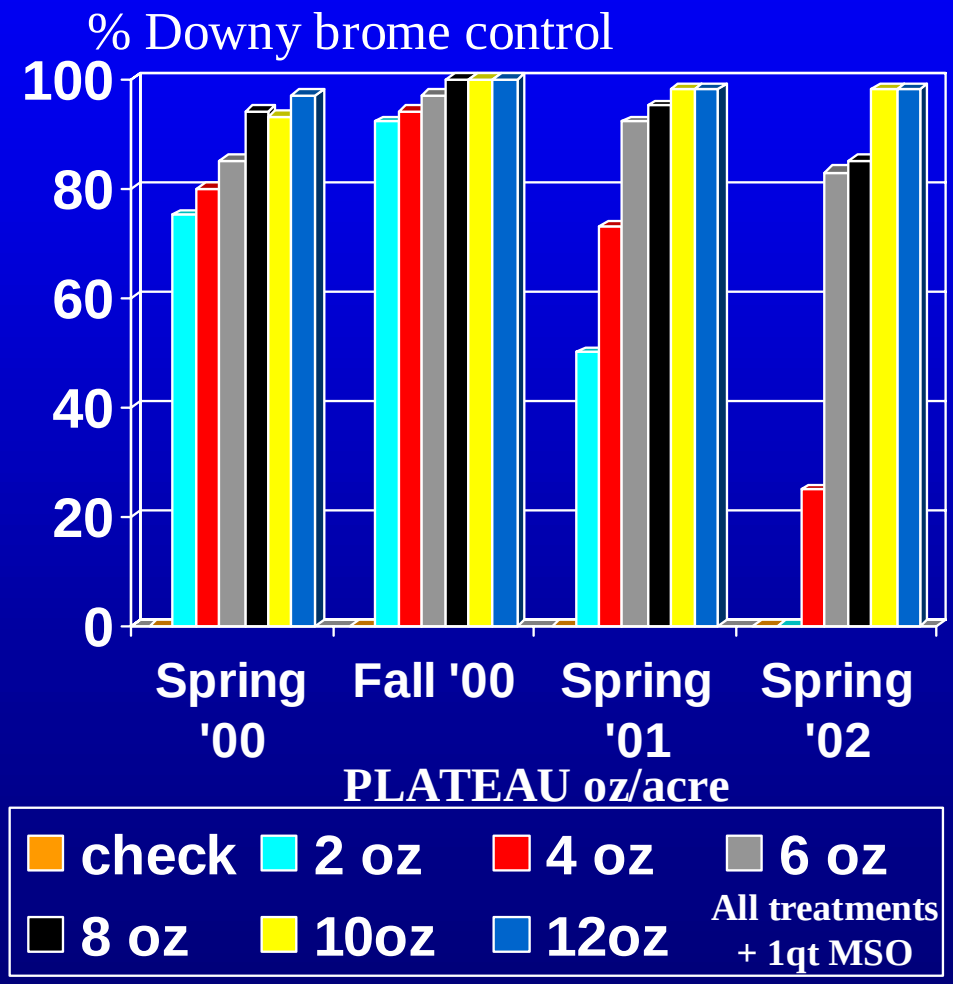
Downy brome control
Release of desirable plants



- **Application:**
  - Nov 3, 1999
  - Pre-emergence to downy brome germination
- **Rating:**
  - Spring = May, 2000
  - Fall = Nov, 2000
  - Spring = April 2001
  - Spring = April 2002

PLATEAU herbicide

Downy brome control
Release of desirable plants

Non-treated check

May 3, 2000
6 months after treatment
Plateau 8oz/acre + MSO

Downy brome control
Release of desirable plants

Area released from downy brome
1½ years after treatment, Plateau 8oz/acre

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Fire Modeling Data Collection

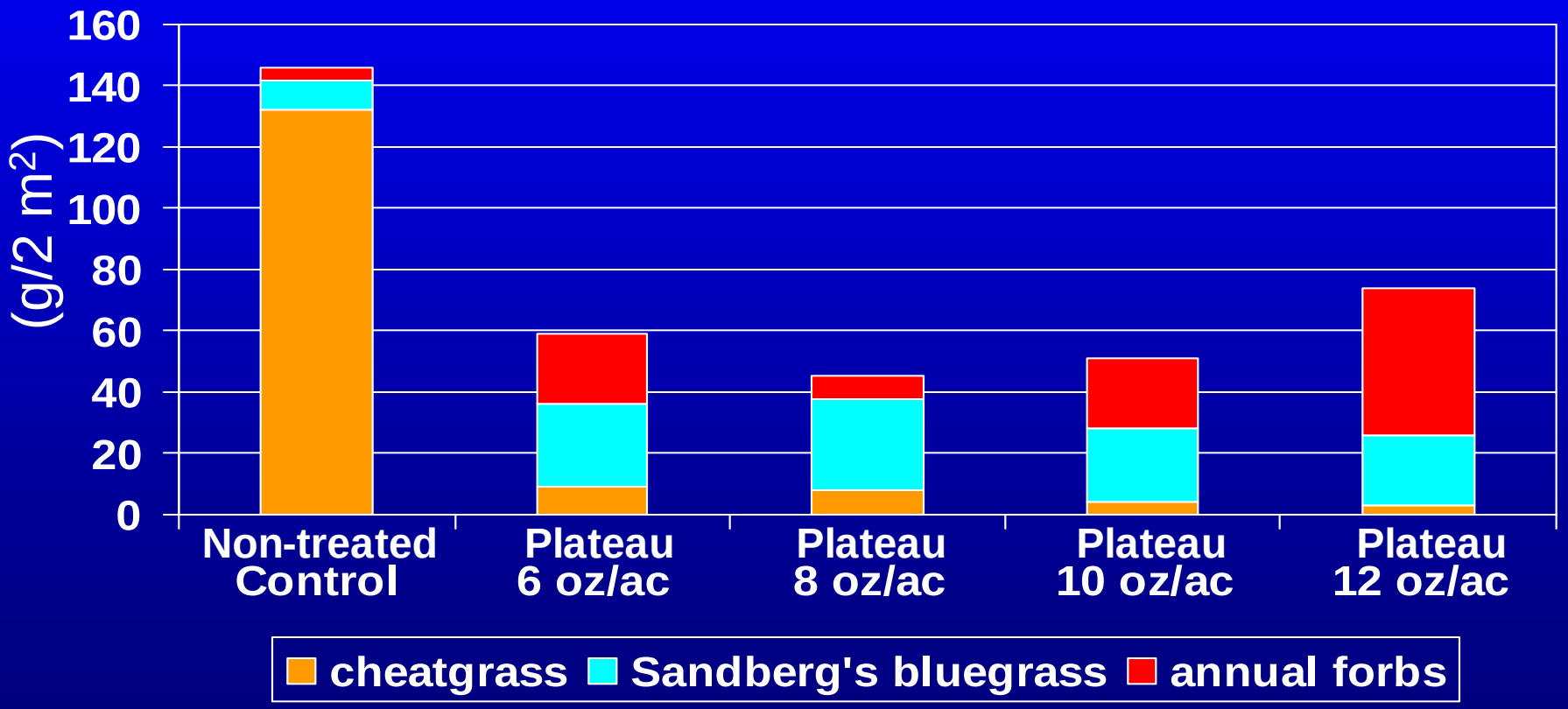
June 15, 2002 - 32 MAT

- **plots were analyzed to determine fire behavior**
- **Data collected:**
  - **Biomass production**
  - **Litter accumulation**
  - **Plant height**
  - **Plant inter-space**
- **Data applied to: BehavePlus Fire-Modeling Program**

Fire Modeling – Live Biomass

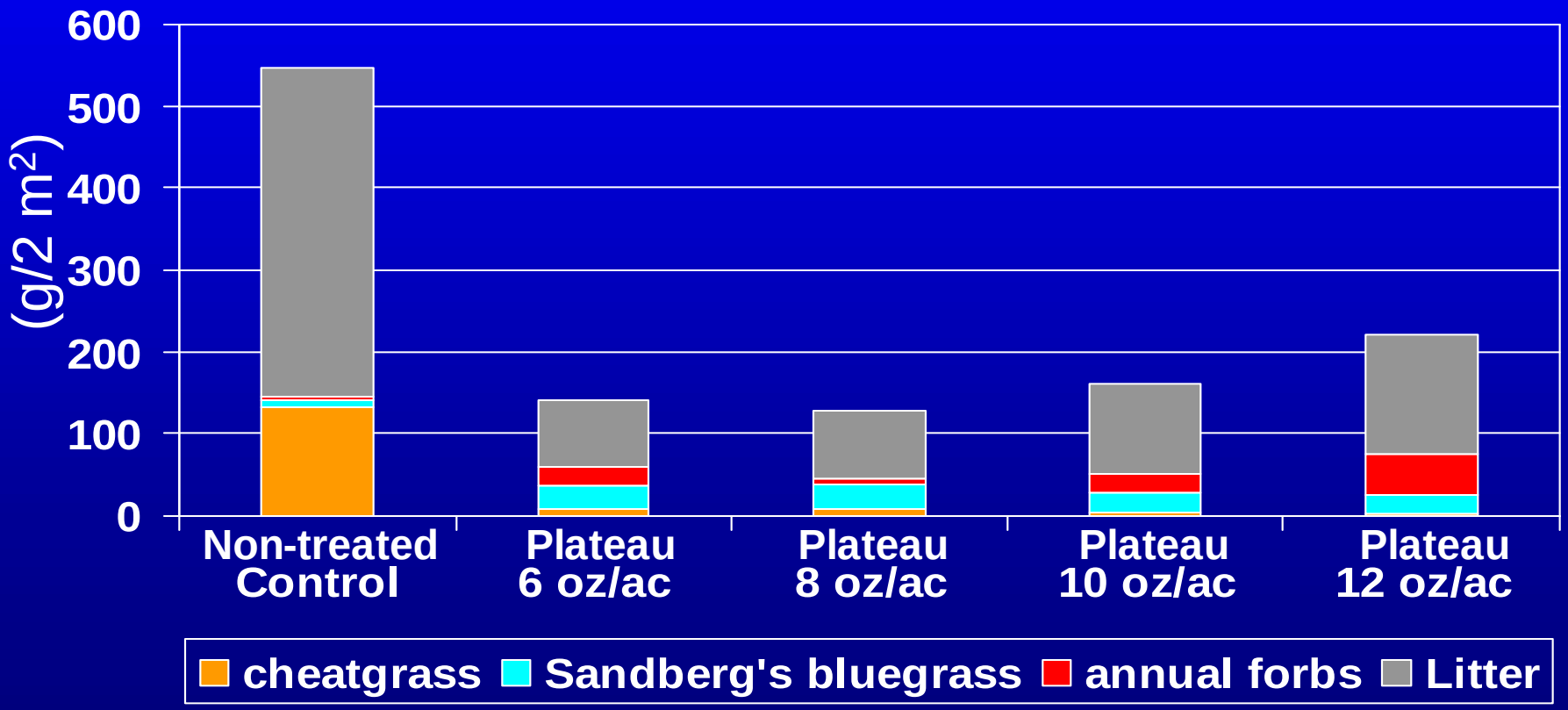
Dry year – Tallest cheatgrass was 6 inches

Plant sample weights (grams/2 meter^2)

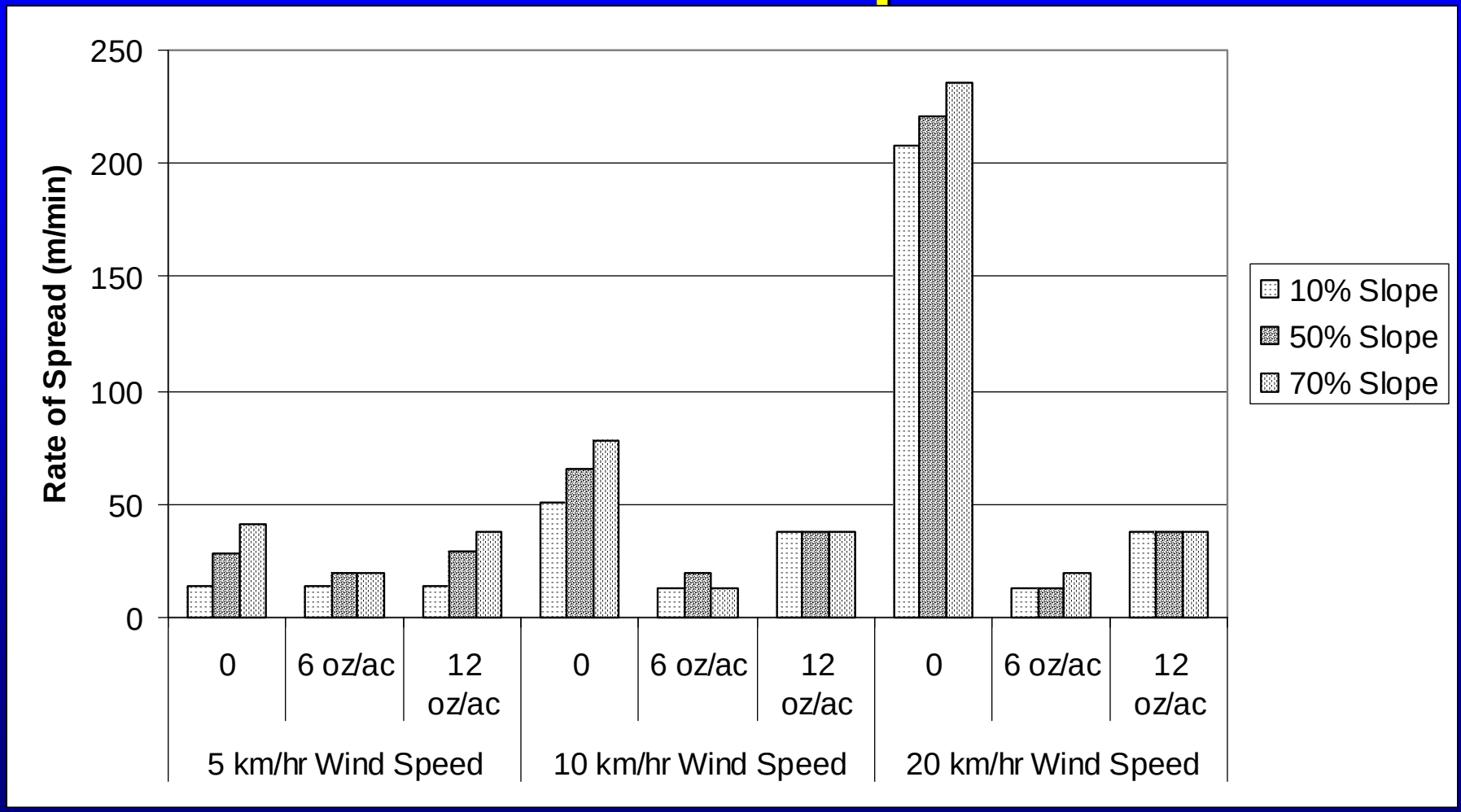


Fire Modeling – Biomass w/ Litter

Plant sample weights (grams/2 meter^2)



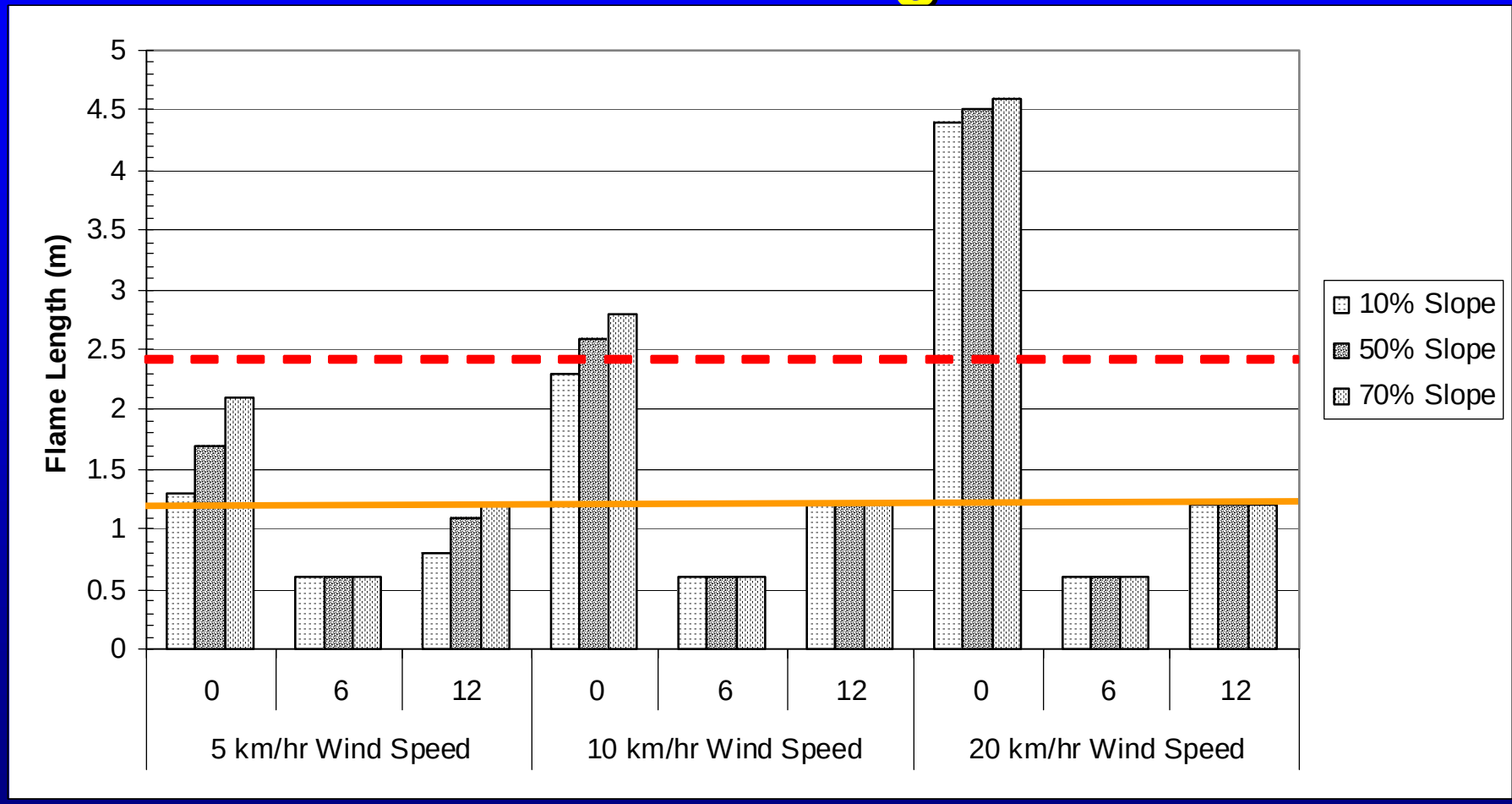
Fire Modeling
Rate of Fire Spread



Rate of spread (m/min) at three slopes and three wind speeds and 5% fine fuel moisture comparing Plateau application rates of 0, 6, and 12 oz/ac.

Data collected and analyzed by Synergy Resource Solutions, Inc.

Fire Modeling
Flame Length

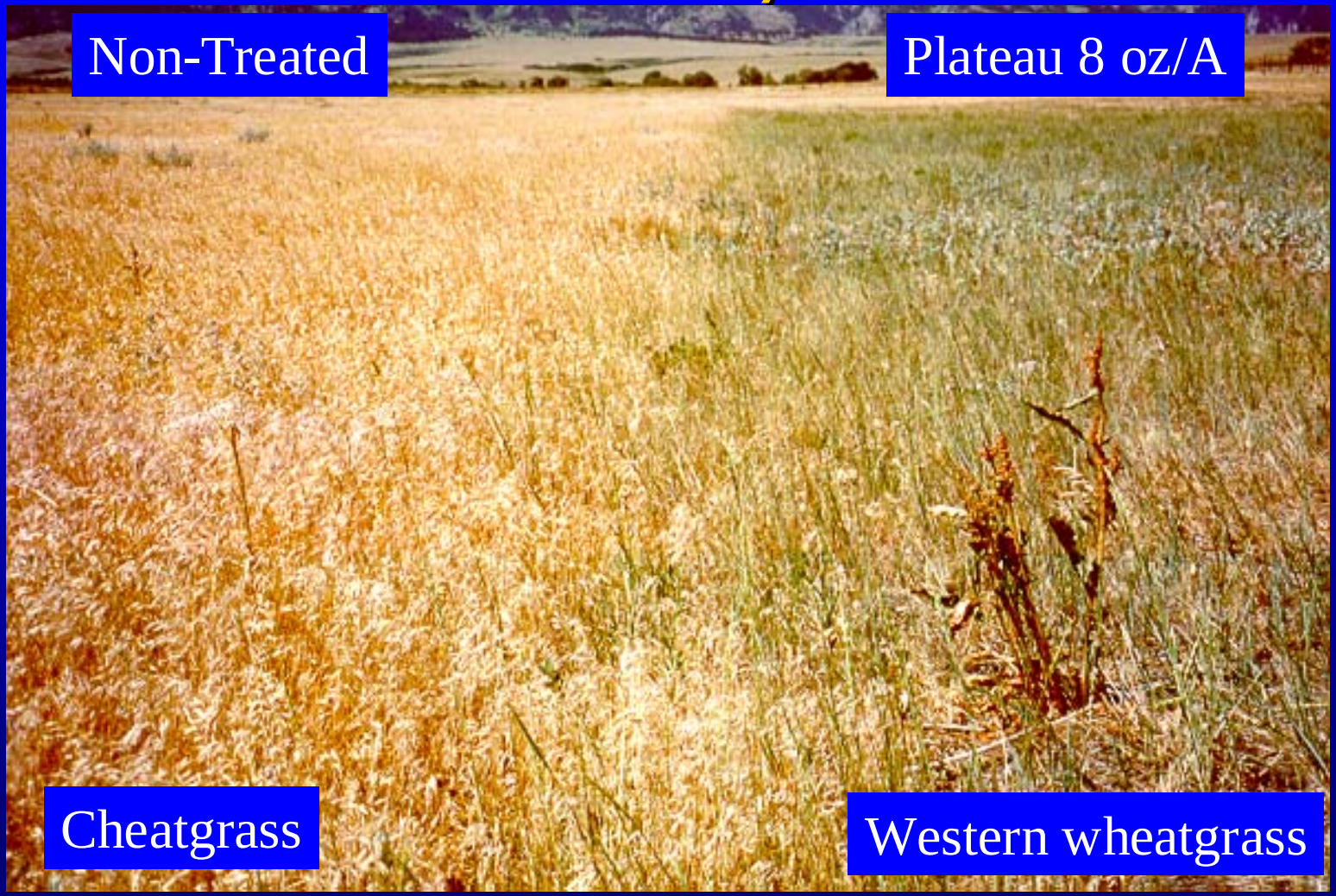


flame length of 1.2 m (hand control ceases to be effective).

flame length of 2.4 m (the fire cannot be contained from the head fire).

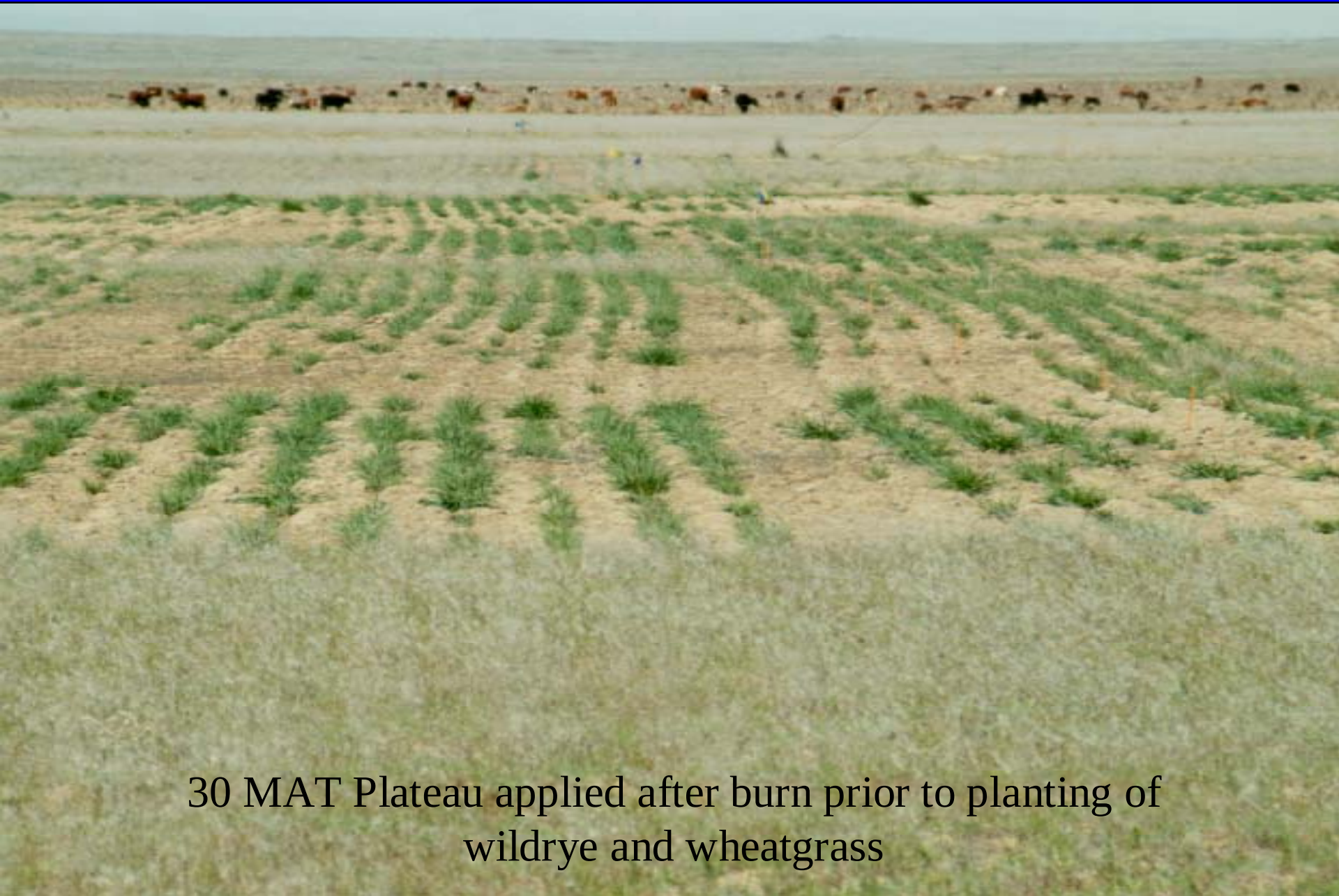
Data collected and analyzed by Synergy Resource Solutions, Inc.

Native Range Release
Sheridan, WY



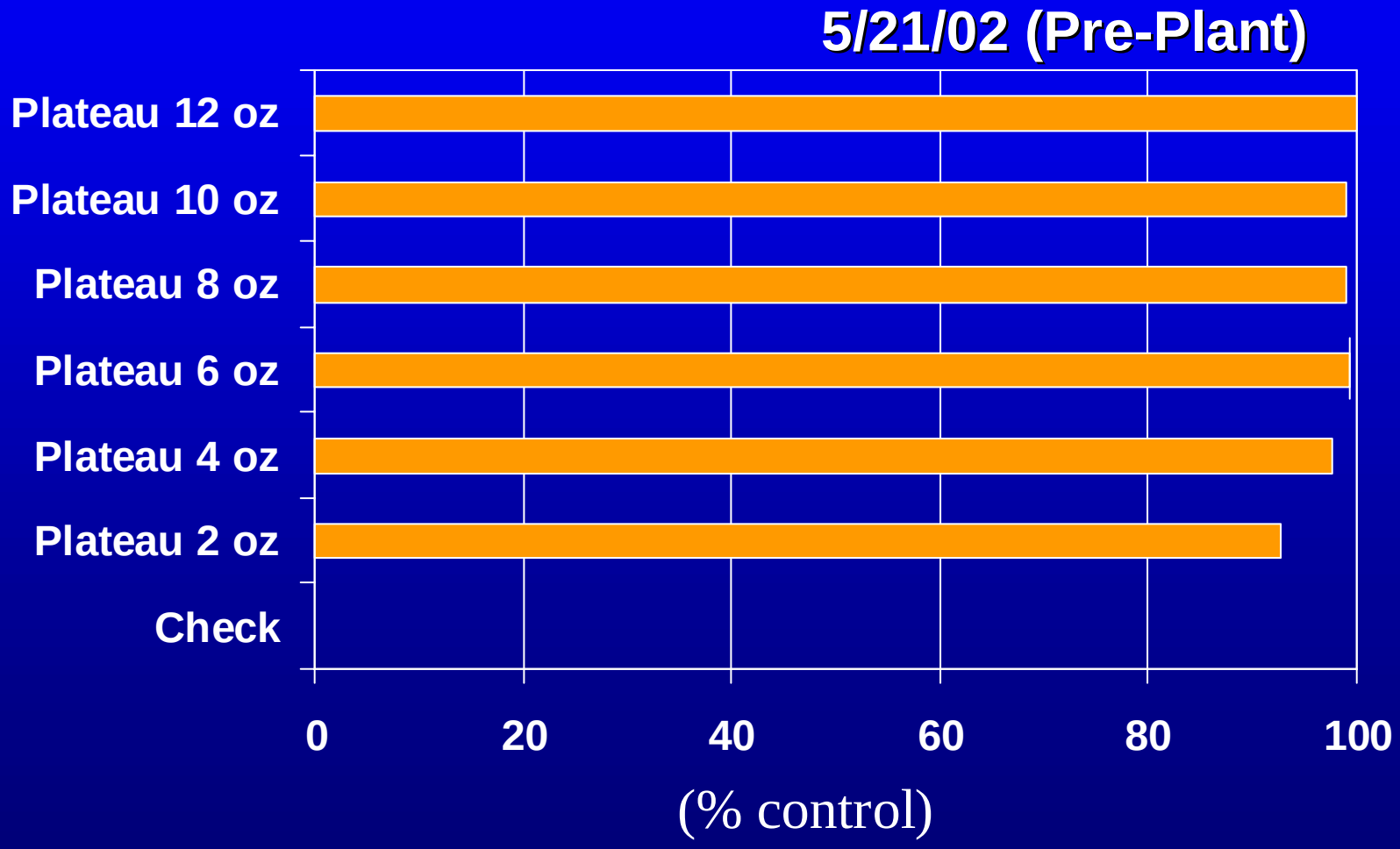
GRASS ESTABLISHMENT
Boisie, ID BLM – Simco Road Site

- **Treated: 11/3/99**
- **Planted: 11/17/99**
- **Timing: Pre-Plant, Pre-emergence to burbuttercup and downy brome.**
- **Species Planted:**
  - **Bozoisky Russian Wildrye**
  - **Vavilov Siberian Wheatgrass**



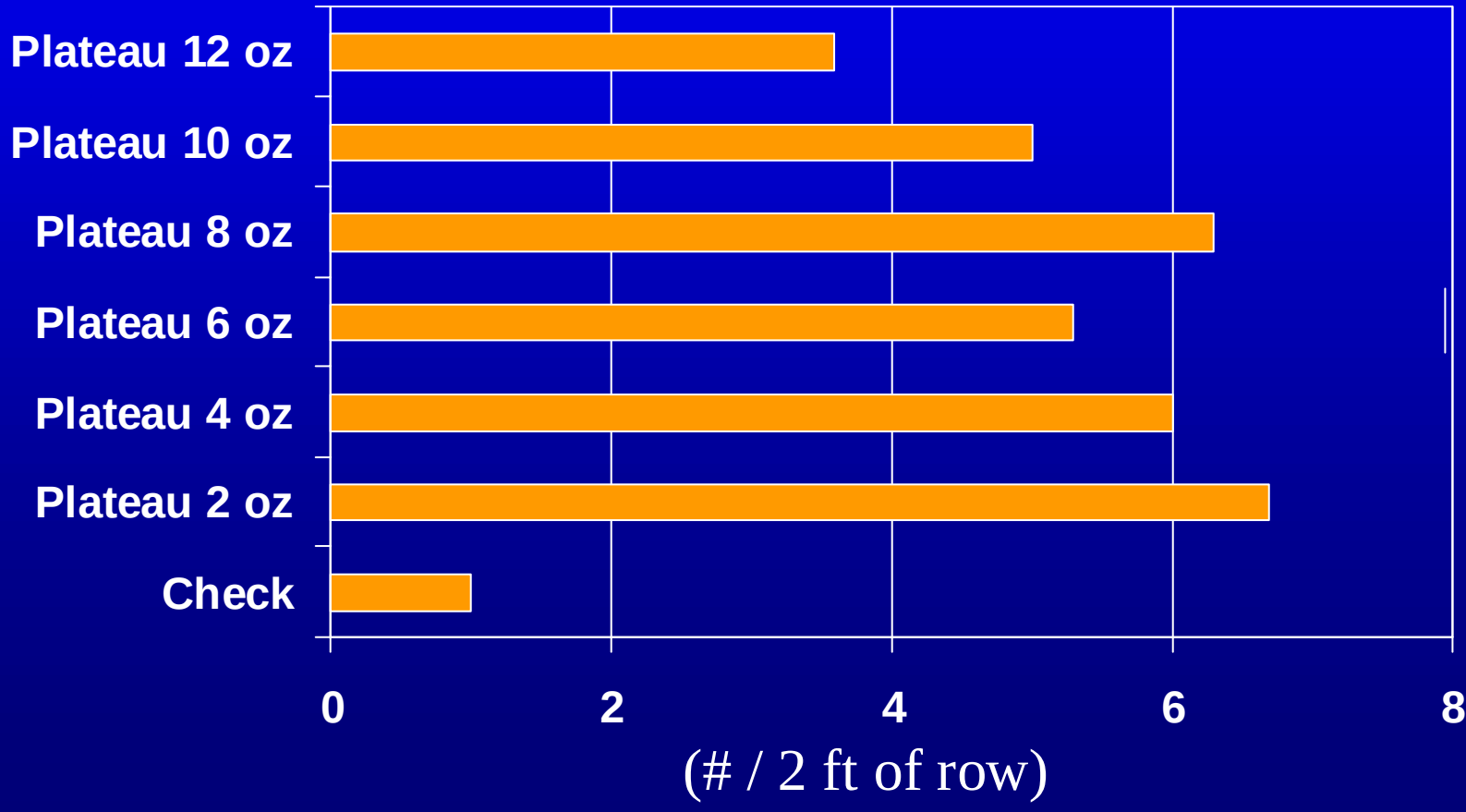
30 MAT Plateau applied after burn prior to planting of wildrye and wheatgrass

DOWNY BROME - % CONTROL
Boisie, ID – 30 MAT

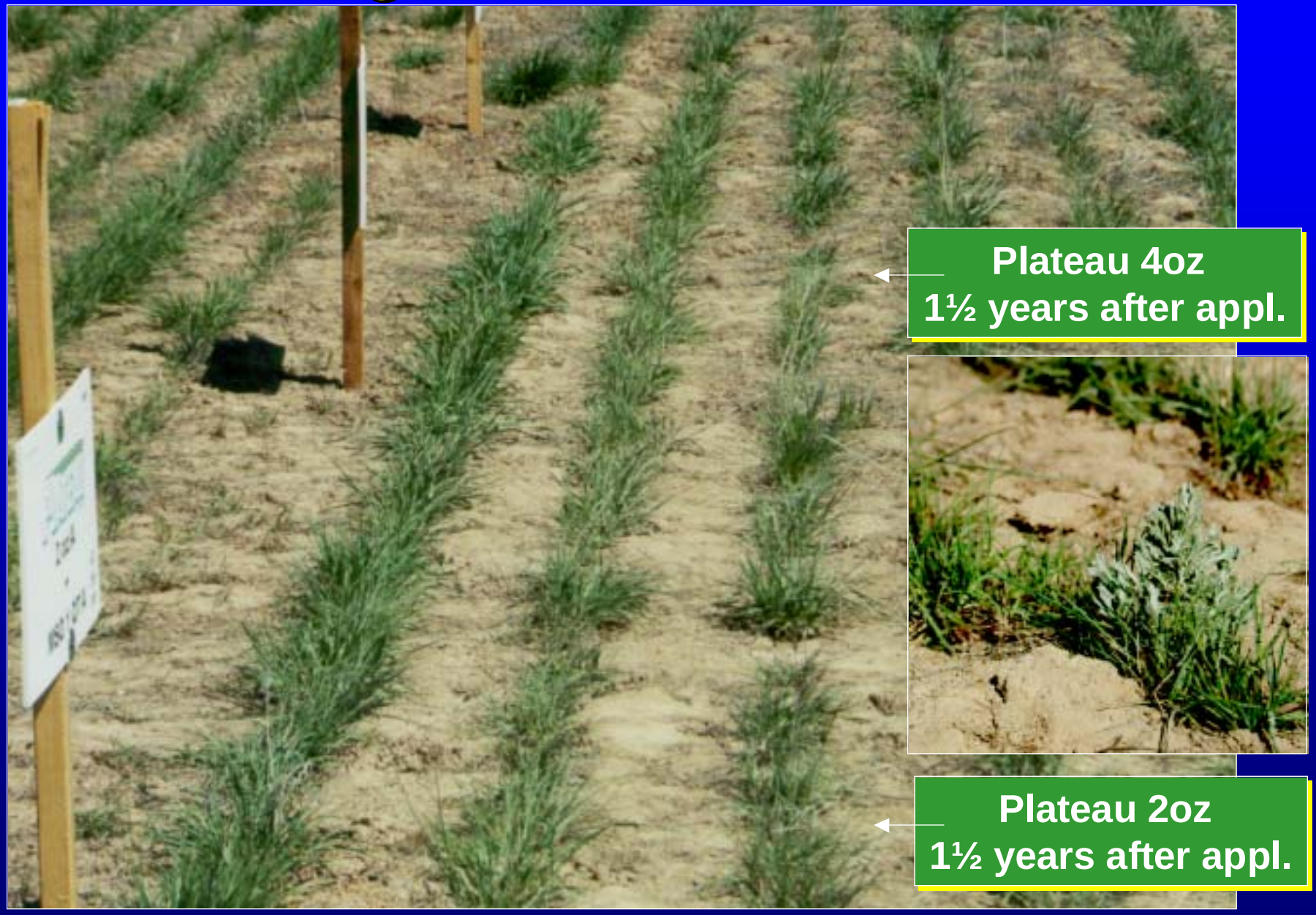


ESTABLISHMENT OF SIBERIAN WHEATGRASS & RUSSIAN WILDRYE - Boisie, ID – 30 MAT

of Plants per 2 foot of row 5/21/02 (Pre-Plant)



Revegetation after a burn



Wyoming can still be rescued!

Returning the Range

Conclusion 3 YAT

- Treated areas had significantly less downy brome than non-treated area.
- Plateau at 6 oz/A or higher would effectively reduce *B. tectorum* in and around important habitat resources.
- Flame lengths would be reduced by 50 – 90% in the 6 oz rate of Plateau.

Conclusion 3 YAT

- Plateau plots had Lower Flame Heights & Rate of Spread than the non-treated plots.
- Hand Control of fire could have been used on fires in all Plateau plots but not in any of the Non-treated plots.
- Plateau can be used to establish desired vegetation.

Conclusion 3 YAT

- Plateau can be incorporated into land management plans, reducing the risk of loss of life, structures and vegetation in areas of concern by reducing fuel load.

Conclusion

- **Plateau is effective for control of annual *bromus spp.***
- **Most rangeland grasses, forbs & shrubs are tolerant at these rates and timings.**

PLATEAU herbicide

Annual Brome Control

PLATEAU® herbicide

GAINING NEW GROUND.